

REMARKS

The enclosed is responsive to the Examiner's Final Office Action mailed on February 4, 2010. By way of the present response applicant has: 1) amended claims 1, 5, 7, 16, and 25; 2) added no claims; and 3) canceled claims 4, 8-11, 13, 17, 24, 26-37, 39-43, 45, and 46. No new matter has been added. Reconsideration of this application as amended is respectfully requested. An RCE accompanies this Amendment.

Claim Rejections – 35 U.S.C. §103

Claims 1-3, 14, 16, 18, 21, 23, 25, 36, 38, and 44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Norman (U.S. Patent No. 6,635,067, hereinafter, "Norman") in view of Selewski et al., (U.S. Patent No. 6,777,844, hereinafter, "Selewski") and Yoshimura et al., (U.S. Patent No. 7,033,144, hereinafter, "Yoshimura"). Applicant does not admit that Selewski and Yoshimura are prior art and reserves the right to swear behind Selewski or Yoshimura at a later date.

Norman describes a liquid-cooled, hand-held surgical tool. Selewski describes a vacuum cleaner assembly powered by a brushless motor. Yoshimura describes a cooling fan for an oil-cooled screw compressor.

Applicant respectfully submits that Norman does not teach or suggest a combination with Selewski and Yoshimura and that Selewski and Yoshimura do not teach or suggest a combination with Norman. The combination of the surgical tool described in Norman and a vacuum cleaner's motor assembly in Selewski is the result of impermissible hindsight based only upon the present application.

Furthermore, even if Norman, Selewski, and Yoshimura were combined, the combination fails to disclose a controller configured to monitor a pressure of the gaseous fluid exiting the void space and turn off the motor in response to the determining that the pressure has fallen below a predetermined level as set forth in amended claim 1. Applicant agrees with the Examiner's assertion that Normal fails to disclose this feature. Applicant, however, disagrees with the Examiner's assertion that this feature would have been obvious in view of Selewski and Yoshimura.

The Examiner argues that claim 1 as previously presented did not "connect the determination of the pressure directly to the controller." (Office Action dated 2/4/10, page 7). Applicant respectfully disagrees. In the interest of furthering prosecution, however, applicant has amended claim 1 to more clearly recite that the controller monitors the pressure of the gaseous fluid.

The Examiner further argues that Selewski teaches "a controller turns off the motor if the pressure of air flow falls below a predetermined level." (Office Action dated 2/4/10, page 3). Applicant respectfully disagrees. Selewski is concerned with temperature, not pressure - i.e., Selewski describes a thermal sensor to detect overheating of the motor and shut down the motor if the temperature exceeds a threshold. (Selewski, col. 9, ll. 18-28).

The Examiner's argument on page 3 of the Office Action continues by alleging that Yoshimura teaches a controller configured to monitor the discharge pressure of a fluid provided for the purpose of cooling the motor. Applicant respectfully disagrees. Yoshimura describes an oil-cooled compressor and a **fan to independently cool the motor.** (Yoshimura, col. 3, lines 50-55). The pressure

detector described in Yoshimura detects oil flow pressure. The oil flow is used to cool the compressor, not the motor. Therefore, applicant respectfully submits that the Examiner's argument on page 7 of the Office Action alleging a connection between air flow pressure about the motor and the temperature of the motor is not supported by Yoshimura.

Furthermore, Yoshimura describes that "the heat generation quantity of the motor can be obtained from the ***motor rotation speed R and*** the discharge pressure P2. Thus, when the ***heat generation quantity is estimated*** from the motor rotation speed R and the discharge pressure P2, and the cooling airflow quantity, and furthermore the rotation speed of the fan, corresponding to the heat generation quantity are obtained, ***proper cooling is enabled.***" (Yoshimura, col. 5, ll. 36-44) (emphasis added). The discharge pressure detected in Yoshimura is created by the compressor, which is driven by the motor. Yoshimura is concerned with heat generation as a result of loss in power transfer from the motor to the compressor. Yoshimura, therefore, is also concerned with temperature, ***not the pressure of a gaseous fluid supplied to cool the motor.***

Neither Yoshimura nor Selewski teaches or suggests turning off the motor in response to determining that a detected pressure of gaseous fluid exiting the void space has fallen below a predetermined level. Instead, the combination would describe either sensing a temperature or estimating the temperature/heat generation quantity based partially upon a pressure generated by a connected compressor and turning off the tool based upon that temperature/estimated temperature. Furthermore, Yoshimura only provides an estimate of heat generation that requires *both* motor rotation speed and discharge pressure (of the compressor).

This estimate is only described as being sufficient for proper cooling - Yoshimura does not state any accuracy or application for the estimate beyond that purpose.

Additionally, monitoring the pressure of gaseous fluid exiting the void space provides advantages over monitoring the temperature or estimating the temperature using pressure as one of many factors. Determining the pressure of gaseous fluid exiting the void space allows the user to determine whether any gaseous fluid has been lost during use, e.g., through hose or other leaks. Any loss of gaseous fluid during use in a sterilized environment can be considered a contaminant.

Furthermore, maintaining a particular pressure within the tool can serve to prevent water/liquid ingress into the tool, which can damage the motor -- e.g., when dipping the tool into a sterilization bath. Lastly, when dipping the tool into a sterilization bath that is of a high temperature, the tool is subject to high fluctuations in temperature that do not necessarily correspond to the temperature of the motor. Therefore, it is beneficial to use the pressure rather than temperature to turn off the motor.

Accordingly, applicant respectfully submits that the rejection of claim 1 has been overcome.

Given that claims 2-3, 14, 16, 18, 21, 23, 25, 36, 38, and 44 are dependent upon claim 1, and include additional features, applicant respectfully submits that the rejection of claims 2-3, 14, 16, 18, 21, 23, 25, 36, 38, and 44 has been overcome for at least the same reasons as above.

Claims 5, 6, 7, and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Norman in view of Selewski and Yoshimura and further in view of Sjostrom et al (U.S. Patent No. 5,712,543, hereinafter, "Sjostrom").

Given that claims 5, 6, 7, and 12 are dependent upon claim 1, and include additional limitations, and given that Sjostrom fails to remedy the shortcomings of Norman, Selewski, and Yoshimura discussed above, applicant respectfully submits that the rejection of claims 5, 6, 7, and 12 has been overcome for at least the same reasons as above.

CONCLUSION

Applicant respectfully submits that in view of the amendments and arguments set forth herein, the applicable objections and rejections have been overcome.

Applicant reserves all rights under the doctrine of equivalents.

Pursuant to 37 C.F.R. 1.136(a)(3), applicant hereby requests and authorizes the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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/Ryan W. Elliott/
Ryan W. Elliott
Reg. No. 60,156

1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300